

CALIFORNIA GARDEN



IN THIS NUMBER

FIFTY MEDICINAL PLANTS
SOME TROPICAL PLANTS AND ANTS
JUST GARDENS
THE LATH HOUSE

MARCH, 1927

TEN CENTS

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All interested in garden matters and civic beautification are invited to join. Dues \$1.00 per year. Magazine and Membership combined \$1.50 per year. P. O. Box 323, San Diego.



The California Garden

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Vol. 18

SAN DIEGO, CALIFORNIA, MARCH, 1927

No. 9

PREMIUM LIST

Twentieth Annual Spring Show, Roses and other flowers,

Saturday and Sunday, April 23 and 24, 1927, Main Plaza, Balboa Park, opening

Saturday 2 p. m. Admission 25 cents.

Section "A" Amateurs

- *1. Best Collection of Roses—not less than 12 varieties and not more than 3 blooms of a kind. (Association Cup.)
- *2. Best 6 varieties of Roses—not more than 3 blooms of a kind. (American Rose Society Silver Medal.)
- *3. Best Collection of Roses—not more than 1 bloom of a kind. (American Rose Society Bronze Medal.)
- 3a. Best Rose in the Show. (Trophy—Membership in American Rose Society.)
 - 4. Best Three White Roses, one variety.
 - 5. Best Three Red Roses, one variety.
 - 6. Best Three Yellow Roses, one variety.
 - 7. Best Three Yellow Shaded Roses, one variety.
 - 8. Best Three Pink Roses, one variety.
 - 9. Best Three Pink Shaded Roses, one variety.
- 10. Best Three Flame Colored Roses, one variety (example Mde. Herriott).
- 11. Best One White Rose.
- 12. Best One Pink Rose.
- 13. Best One Yellow Rose.
- 14. Best One Red Rose.
- 15. Best One Crimson Rose.
- 16. Best Single Rose (example Isobel or Irish Elegance).
- 17. Best Display of Polyantha or Baby Roses.
- 18. Best Display of Climbing Roses.
- 19. Best Rose not before shown in San Diego.
- 20. Best Six Red Roses, one variety.
- 21. Best Six Los Angeles Roses.
- 22. Best Six any other variety Roses.
- 23. Best Arranged Vase, Bowl or Dish of Roses, Greenery allowed.
- *24. Best Arranged Basket of Roses. Greenery allowed.

Section "B" Amateurs

- *25. Best Collection Sweet Peas, not less than 15 stems.
- 26. Best Vase White Sweet Peas.
- 27. Best Vase Light Pink Sweet Peas.
- 28. Best Vase Dark Pink Sweet Peas.
- 29. Best Vase Red Sweet Peas.
- 30. Best Vase Lavender Sweet Peas.

- 31. Best Vase Blue Sweet Peas.
- 32. Best Vase Purple Sweet Peas.
- 33. Best Vase Salmon Sweet Peas.
- 34. Best Vase Maroon Sweet Peas.
- 35. Best Vase Bicolor Sweet Peas.
Limit 20 sprays in classes 26 to 35.
- 36. Best Arranged Basket of Sweet Peas.
- 37. Best Arranged Bowl of Sweet Peas.
*Sweet Pea Sweepstakes.

Section "C" Amateurs

- 38. Best Arranged Basket of Flowers other than Roses.
- 39. Best Arranged Basket of Wild Flowers.
- 40. Best Arrangement of Flowers in Bowl, Vase or Dish.
- 41. Best Flowering Plant for the house.
- 42. Best Individual Specimen Decorative Plant.
- 43. Best Cut Specimen Flowering Vine.
- *44. Best Display of Bulb Flowers.
- 45. Best Display of Gladiolus.
- *46. Best Display of Iris.
- 47. Best Display of Pansies.
- 48. Best Display of Wild Flowers grown by an individual.
- *49. Best Display from a 50 foot or less lot. Trophy.
- *50. Best Display from a private garden larger than fifty feet. Trophy.
- *51. Best Display from Civic, State or National institution.
- 52. Best Display Cinerarias, Dwarf Hybrid.
- 53. Best Display of Cinerarias, Stellata.
- 54. Best Potted Cinerarias, Dwarf Hybrid.
- 55. Best Potted Cinerarias, Stellata.
- 56. Best Display of Pelargoniums or Lady Washington Geraniums.
- 57. Best Display of Geraniums.
- 58. Best Display of Delphiniums.
- 59. Best Display of Stocks.
- 60. Best Display of Snapdragons.
- 61. Best Display of Calendulas.
- 62. Best Display of Larkspurs.
- 63. Best Display any other flowers not otherwise classified.
- 64. Best Collection of Succulents and Cacti.
- 65. Best Collection of Rock Garden Plants.

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other than above.

66. Best Collection of Begonias, Ferns and House Palms.

Section "D" Children Classes

- *67. Best Collection of Wild Flowers by any school in city.
*68. Best Collection of Wild Flowers by any school in county, outside city.

Section "E" for Professionals (Entries by Nurserymen)

- *69. Best Display of Cut Roses.
70. Best Collection of Rose Bushes in Bloom.
71. Best General Display of Cut Flowers other than Roses.
72. Best Display of Sweet Peas—separate varieties.
*73. Best General Display of Shrubs and Plants.
74. Best Display of Everlasting Flowers.
75. Best Display of Bulb Flowers.

(Entries by Florists)

- *76. Best Arranged Basket, Bowl or Vase of Cut Flowers.

*Classes in which Trophies are offered. Handsome ribbons for first and second in all classes.

RULES

1. All exhibits must be in place and properly entered by 10 a. m. of first day of show so that judging may be completed and awards made before opening. All

vases, baskets, etc., belonging to exhibitors, must be called for Monday morning, not later than 11:00 o'clock. No exhibitor will be allowed to be present while judging is going on.

2. All entries must be in the hands of the clerks by 9 a. m. of the first day of show. Clerks will be on duty at 7:30 a. m. and entries will be received at any time between these hours.
3. All pot plants must have been in the possession of the exhibitor at least three months; all other flowers and plants except collected wild flowers must have been grown by the exhibitor, except where used for table decoration.
4. The committee on awards is authorized to give suitable award for any meritorious exhibit not included in classes named above.
5. Exhibits can be entered in one class only.
6. Vases are loaned without charge for cut flowers in the competitive classes.
7. Exhibits are, from the commencement of the show, under the jurisdiction of the show officials, and no exhibit shall be removed before the close of the show without the authority of the official in charge.
8. Entries will not be considered by judges unless meritorious.
9. All exhibits must be labeled with the correct names of the plants on white cards 2x3 inches, which will be furnished without charge. Names of exhibitors in competitive classes positively must not appear on exhibits until after awards have been made. (Entries in Class 51 excepted from this rule.)
10. In classes where a given number of blooms is specified, any excess or deficiency of count shall constitute cause for disqualification.
13. Sweet Peas will be judged by length of stem, color, size, substance and number of flowers on stem.
14. The Floral Association invites exhibits, however small, if meritorious. Exhibits of single specimen of flowers or plants will be duly considered. No fee is charged for making entries in this show. Special reservations of space may be made by telephone with Secretary Hill, Main 0605. Where exhibits are to be of any considerable size, it is advisable to make reservations in advance.

Roses—Roses will be judged according to the Standards of the American Rose Society.

FLOWER SHOW
April 23rd and 24th

Patronize the Garden Advertisers.

ROSE PILGRIMAGE

In line with the avowed policy of the San Diego Rose Society, this society of rose lovers recently organized, has in store a rare treat for all who have at heart a love for this, the queen of flowers, namely a rose pilgrimage to the wonderful rose garden of a remarkable and eminently renowned rosarian, Capt. George C. Thomas, Jr., at Beverly Hills. To those who have read his rose books, or of his rose activities in other rose publications, his name alone conjures the imagination. For the benefit of those less fortunate the following biography is written:

Capt. George C. Thomas, Jr., is the author of two indispensable rose books, "The Practical Book of Outdoor Rose Growing", and his latest gem, "Roses for All American Climates". He has devoted close intelligent study to the rose for the better part of two decades. The following excerpts have been gleaned from the writings of J. Horace McFarland, editor for twelve years of the American Rose Annual (official publication of the American Rose Society), and author of "The Rose in America". "No amateur in America has given to the rose within the last fifteen years such closely intelligent study, investigation and observation as has Capt. Thomas. He has the great advantage of having maintained a large rose-garden near Philadelphia, in which were all the varieties obtainable anywhere, and of having established later near Los Angeles another great rose-garden, giving him knowledge both east and west from direct personal contact". In his book the "Rose in America", Mr. McFarland states, "No man in America has given more attention to the study of the bloom habits of the rose, or to the testing of many new varieties, than Capt. George C. Thomas, Jr. First in his great garden near Philadelphia, later, in what he believes to be a particularly favorable location near Los Angeles, he has impartially tried out many varieties, both on their own roots and on various stocks." In addition to the foregoing, I might add he is a hybridizer of no mean ability and bids fair to live up to his past accomplishments, in this most important phase of rose growing.

Picturesquely nestled in the hills, admirably located both geographically and topographically, there awaits a rose feast far beyond man's description, the rose-garden of Capt. George C. Thomas, Jr. The beauty of a rose garden planned and planted by such a truly great rosarian after years of study must surely be beyond conception, particularly at the height of its glory in the spring. That stirs the imagination, marvelous roses, in infinite variety of color, shape and fragrance.

This pilgrimage is possible through the hospitality of Capt. George C. Thomas, Jr., who has graciously extended an invitation through Mr. Forrest L. Hieatt, President of the San Diego Rose Society. Surely we all

feel grateful to Mr. Hieatt for his efforts in making possible this treat. The date for this pilgrimage will be set definitely at the quarterly meeting of the San Diego Rose Society, April fifth.

I want to particularly stress the fact that Capt. George C. Thomas, Jr., has constantly had in mind the welfare of those whose space, finances or time are limited, and who therefore should be more exacting in their selection of roses so as to obtain the greatest satisfaction from a small rose garden. In view of the great amount of time, effort and money he has expended in our behalf, how can we refuse his generous aid, for that is virtually what we would be doing if we fail to attend this pilgrimage, if at all possible to do so. If those who wish to attend would kindly notify Mrs. R. M. Pray, Chula Vista, who is Secretary and Treasurer of the San Diego Rose Society, it would be appreciated.

S. B. OSBORN.

FLOWER SHOW CHAIRMEN

Classes 1-24—Roses. Mr. John Marshall, Hillcrest 0379-W.

Classes 25-37—Sweet Peas. Mr. and Mrs. H. Gibbs, Hillcrest 2947.

Classes 38-40—Baskets, Bowls and Vases. Mrs. Leonard Ellis, Hillcrest 0724.

Class 46—Iris. Miss Alice Halliday, Hillcrest 4041-W.

Classes 44 and 45—Bulb Flowers and Gladiolus. Mrs. William Simison, Hillcrest 7260-J.

Classes 49 and 50—Display from 50 ft. lot or less; display from garden larger than 50 ft. Mrs. John Burnham, Bayview 0501-J.

Classes 41, 42, 43, 47, 48, 52-63—See Premium List. Mr. and Mrs. Morris Straus, Hillcrest 3094.

Classes 64 and 65—Succulents, Cacti and Rock Gardens. Mr. Walter Merrill, Bayview 0601-J.

Class 66—Begonias, Ferns and House Palms. Mrs. E. L. Dornberger, Main 2231.

Class 67—Wild Flowers from City Schools. Mr. Carol Scott, Franklin 4449.

Class 68—Wild Flowers from Country Schools. Mr. W. S. Wright.

Classes 69-76—Professionals. See Premium List. Walter Birch, Main 0842.

Information on entries—Miss Alice Jones, Hillcrest 1482-J.

Judges and floor plans—Mr. John Morley, Main 0605.

Nomenclature—Miss Mary Matthews, Hillcrest 4710-W.

Nine—Cal gard pfa mar 8 FbbThe.rMF,

Clerking—Mrs. Case, Franklin 1502.

Information and subscriptions—Mr. Ernest White.

Gate receipts—Mr. and Mrs. B. Elliot.

General Chairman—Mrs. M. Greer, Hillcrest 1550-J.

Patronize the Garden Advertisers.

FIFTY MEDICINAL PLANTS

By Fidella G. Woodcock
Curator of Plants, Natural History
Museum, San Diego.

(Editor's Note: Miss Woodcock has kindly furnished the following list of plants of medicinal value found in the San Diego and North Mexican Flora in arid and semi-arid areas.)

1. *Larrea tridentata* var *glutinosa* (mexicana)—"Creosote Bush"—*Larrea*. Found in all the deserts. **External**—A domestic medicine made of the leaves for rheumatism, baths, antiseptic, bruises, sores, by boiling and in poultices. **Internal**—Tuberculosis, intestinal trouble.

2. *Datura meteloides*—Thorn-apple—*Tolguache*. An active poison used by native tribes by grinding the whole plant and mixing with water to form a drink. Spanish-Indians—Coahuilla.

3. *Datura stramonium*—"Jimson Weed"—*Stramonium*. The dried leaves are burned and the smoke inhaled like tobacco for the relief of asthma. Poisonous. A migrant from Eastern United States.

4. *Ephedra californica*—Joint Pine—*Canutillo*—"Mexican Tea." A blood purifier.

5. *Adenostoma sparsifolium*—*Wonder Plant*—"Yerba del Pasma"—"Southern Chamise." A cure-all for many diseases of the skin and blood, colds, fevers and kindred ailments.

6. *Artemisia tridentata*—Desert Sage-brush—"Wormwood." Used for making insect powder. Dalmatian Powder.

7. *Anemopsis californica*—Healing Plant—*Hierba Mansa*. An infusion of the root is made by Spanish Californians both into a liniment for skin troubles and a tea for disorders of the blood.

8. *Borago*, various species—*Borraja*—*Flor-de-borraja*. Oriental and Mexican remedies.

9. *Aralia californica*—Ginseng. Sarsaparilla substitute. The root of the plant is used.

10. *Origanum marjorana*—"Sweet Marjoram"—*Mejorana* (Spanish).

11. *Ocimum Basilicum*—"Basil"—*Mint*—*Albanaca*—"Winter Thistle." Introduced from the Pacific Islands.

12. *Trichostema Parishii*—"Woolly Blue Curls"—*Romero*. A mint used in oily compound for rubbing.

13. *Elaphrium microphyllum*—*Torchwood*—"Copal"—(*Bursera* syn.) Applied for uterine troubles and made into ointments.

14. *Centaurium venustum*—"Centaury"—*Canchalagua*. Ague remedy, chills and fever.

15. *Chenopodium ambrosioides* var. *anthelminticum*—"Wormseed"—*Mexican Tea*.

16. *Aretostaphylos glauca*—"Little Apple"—*Mansanillo*—*Manzanita*. Decoction for catarrhal affections and similar diseases. Other species used for cooling fever drink made from berries.

17. *Clematis ligusticifolia*—*Yerba del Chivato*. Infusion of herbage applied to open wounds causes healing. Valuable for horses.

18. *Convolvulus arvensis*—"Bindweed"—*Enredadera de Cera*—*Orchard Morning-glory*.

19. *Ruta chalapensis*—"Rue"—*Ruda*. Introduced in grain fields. Contains essential oils.

20. *Cotyledon*—"Hen-and-Chickens"—*Siempre viva*. *Sempervivum*—*Live-for-ever*.

21. *Daucus Pusilla*—*Wild Carrot*—*Yerba del Vibora*—"Bird's Nest Carrot." Green foliage in poultices used for rattlesnake bite.

22. *Calendula officinalis*—"Pot Marigold." Escape vulnerary, emetic, removes warts. Dried florets are medicinal.

23. *Apium graveolens*—*Wild Celery*. Found along streams and in marshes. An escape. A nerve tonic.

24. *Conium maculatum*—*Water Hemlock*—"Spotted Hemlock." Poisonous.

25. *Asparagus officinalis*—*Asparagus*. Blood purifier. A garden escape in lowlands.

26. *Anthemis nobilis*—*Chamonile*. Purgative. Sparingly naturalized from Europe.

27. *Asarum caudatum*—*Wild Ginger*. Stimulant to digestion. Cold remedy.

(Continued in April Issue)

ANCIENT PINE CONE RECEIVED AT U. C.

A pine cone that might have dropped from the tree on which it grew two million years or more ago, while the progenitors of man were still trying the difficult feat of walking erect on their hind feet, has just been received by the University of California department of paleontology, in a state of perfect preservation.

The cone is from the *Pinus attenuata* tree, a species still in existence, and was found by a prospector, L. G. Beloud, of the town of You Bet, buried beneath a lava flow which is itself probably two million years old. The find was made in the vicinity of You Bet, above Auburn in the Grass Valley region.

R. W. Chaney, honorary curator of the paleobotanical collection of the Museum of Paleontology, states that while instances of such preservation are rare, they have been known occasionally in the past. Another instance recently came to light in the same district when a fragment of *Sequoia* was found by well-borers at a considerable depth below the surface. This fragment is now on exhibition at the San Francisco Ferry Building.

As far as is known, Chaney states, there is no explanation of the preservation process. In many instances preservation has taken place because of the extreme dryness of the climate and immediate surroundings; but in the Sierra region this is not applicable, as is proven by the fact that the pine cone just received was wet through.

Patronize the Garden Advertisers.

The March and April Gardens

STRAY THOUGHTS

By Peter D. Barnhart

Shrubs, fragrant flowering: judiciously planted, add a pleasing note to the symphony played by plants in our Pacific Coast gardens.

Cestrum Parqui belongs to this class. The flowers are not spectacular; a dull greenish yellow, and during the day are odorless, but when the curtain of night is let down on the face of the earth, then it is that it shows character. It distills its sweet perfume on the air, and is a joy, a delight to those of humanity who are fortunate enough to come within range of it.

A native of Chile, where the atmosphere, like our own, is dry, it fits our gardens to perfection. If severely pruned after flowering, and rested a bit, it will give three crops of flowers during the summer season. If fed and watered freely, as some other subjects must be, it grows too rank and will not flower freely.

Buddleia asiatica is more liberal with its sweetness. Like some people, it sheds its perfume during the day, as well as at night. Then too the long, graceful sprays of pure white flowers, are fine for cutting and decorating. If given room for development, and properly trained, it grows to be a good-sized tree. For small grounds it must be severely pruned after flowering to keep it within bounds. It is a "winter" flowering subject.

Jasminum grandiflorum, a native of India, is one of those shrubs or vines which ever you choose to call it, that is gracious enough to suit itself to the whim of the gardener who grows it. As a vine it will cover the side of a house; as a shrub, if properly pinched, it will make a fine specimen, and the odor of the flowers is the most refined, the most delightful, of all the perfumes this writer knows anything about. It has one defect; the faded flowers will persist, marring the beauty of the plant.

Daphne odora is another shrub that is highly desirable, on account of its exquisite perfume. It is an evergreen, of very slow growth, and an aristocrat of the vegetable kingdom. It won't stand for any familiarity, in the way of cutting the flowers, and make growth too. It is an expensive plant, because a long time is necessary to grow one to good size. If this note will lead a reader to buy a plant, don't be shocked if the nurseryman asks 5 or even 10 dollars for it. The probability is, he has been ten years growing it.

(Continued on Page 9)

THE GARDEN

By Walter Birch

Taking it for granted that our wonderful rains will have moderated before you read this, with consequent drying of the soil so that it separates easily again, you can go ahead and plant and sow almost anything that your fancy dictates in either the vegetable or flower garden. In the former, finish up the planting of asparagus and rhubarb roots, and get busy with sweet corn, beans and all the smaller seeds, including the melon and squash families, also cucumbers. You will find Golden Bantam and Oregon Evergreen Sweet Corn two of the best, the first for early production and the second for main crop. Of beans, Burpee's Stringless Green Pod still takes the biscuit as prime favorite of the green pod bush varieties and Kentucky Wonder as a pole variety. Of the wax pod, Golden Wax and Ventura Wonder Wax are both good. The Pollock Number 10-25 is the latest improvement of the well known Rocky Ford Muskmelon. It is medium size and early and very popular. For a later melon try the Tip-Top. It is larger than the Pollock and a melon of very fine flavor. If you have space for a watermelon, try the Klondyke, a wonderful melon of fine flavor and an early and continuous bearer until late in the fall. Of cucumbers, Klondyke also for early production and Davis Perfect for main crop.

Don't forget to get after all garden pests at this time, or they will surely make sad inroads on your young plants. Use Black Leaf 40 for the Aphis, Arsenate of Lead for the leaf-eating insects, Sulphur, Bordeaux Mixture or Qua-Sal for mildew, rust and blight, and Calcium Arsenate and Bran or Snarol for snails and slugs. All of these remedies are put up in large and small quantities with simple directions printed on each container, so don't sacrifice your garden by neglecting to wage war on these enemies of the garden and your peace of mind.

In the flower garden and vegetable garden take advantage of the wonderful moisture stored in the ground and cultivate the whole surface to a fine state of tilth, so as to prevent evaporation and promote growth.

Plant a few more Gladioli bulbs so as to have a succession of these beautiful flowers, and get ready for planting Dahlias. For those of you who have already thoroughly spaded and manured the ground for your

(Continued on Page 11)

The California Garden

Editor
R. R. McLean
Associate Editors
Miss Mary Matthews
Alfred D. Robinson

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EDITORIAL

The article immediately following is taken from American Forests and Forest Life. It is reprinted here in order that California Garden readers may form some idea of the danger that threatens pine forests in Western America. Not only is the annual timber loss by reason of pine bark beetle attack enormous, and in that we are, of course, at least mildly interested, but what comes closer home is that this beetle is already at work in our own San Diego County pines. Many large and beautiful trees at Pine Hills, Julian, Cuyamaca, the Lagunas and presumably on Palomar also, have succumbed during the past five years to the deadly work of multitudes of these small insects. The writer was called to Pine Hills a few years ago to diagnose the cause of decline of a large pine tree there nearly four feet in diameter, this particular one forming one of the triangle points at the Y. M. C. A. summer camp. A hasty inspection of the doomed tree immediately told the story, pine bark beetles. Since that time dozens and dozens of beautiful pines in our mountains have come to an untimely end by reason of pine bark beetle attack. Unfortunately there is no known method of controlling these pests other than by cutting out affected trees, and stripping and burning the bark in the early spring before the beetles emerge to seek other trees for purposes of egg laying.

It is believed that pine bark beetle injury

is always more noticeable following a series of dry years. During normally cold and wet seasons in the pine-growing sections there is usually a certain natural mortality among the beetles that serves to keep their numbers down. But let a few winters be relatively mild and dry, and beetle injury is sure to increase at a rapid rate. It is also true that the resistance of a tree to beetle attack is more or less lessened following a series of dry years. As a human being in poor physical condition more readily contracts certain diseases so a tree weakened by lack of moisture will fall more quickly before bark beetles.

We do not grow pines in this country commercially or on a lumber basis, but what trees we have are of vastly more value to us than if it were a lumbering proposition only. The esthetic and sentimental value as well as the really practical value of our pines, and other trees for that matter, is really incalculable. Local officials of the Government forest service are fully alive to the situation and realize the imperative need of experimental and actual work in connection with bark beetle control. They are, however, handicapped by lack of funds and men. At the best they can only concern themselves with national forests. Any control work at all in order to be successful must cover both nationally and privately owned forests. Can anything be done about it?

SHALL WE SURRENDER TO THE BEETLES?

An attempt was made by the American Forestry Association to have included in the Agricultural Appropriation bill for the next fiscal year an increase of \$50,000 for investigation and control of insects affecting forests. It met with little sympathy. There is no great pall of smoke over the country nor is the sky reddened with miles of flame from the work of the pine bark beetles on the Pacific Coast and in the Rocky Mountain states. There is no known instance of loss of human life on account of the work of these insects. Their campaign of destruction, which runs into fifteen or twenty million dollars loss every year, is quiet. Except in epidemic infestations where great areas of lumber are killed in a single season, there is no suggestion of the spectacular. Must we look to this lack to find the reason for failure in combating this pest, or must we charge it to the monotonous cry for economy in Government expenditure or to failure of the bureau responsible for insect control to fight for appropriations it knows are greatly needed? By whatever name we may call this neglect by the Federal Government the bold fact stands out that in 1924 Federal co-operation in the control of the pine bark beetle in Oregon ceased because of the exhaustion of Federal appropriations. The work on private

land has continued. The slowing up of the work in this region together with a succession of dry years, has resulted in 4,500,000 acres being infested with pine bark beetles which threatens to destroy thirty billion feet of standing pine. Nor is the story confined to Oregon. It was estimated in 1924 that the loss from the depredations of this small girdling insect exceeded five billion feet of standing timber annually. Figured at \$3.00 a thousand feet this amounts to a fifteen million dollar annual damage.

Many of the infested areas occur in the National Forests, Indian reservations or timbered portions of the unreserved Public Domain where control of the pest is a responsibility of proprietorship on the part of the United States. The concern of the private timberland owners perhaps would not be so great if the problem were not incurably co-operative. Lack of control on the Federal areas, as in the case of fire on the timbered portions of the Public Domain, spreads the trouble to well-protected and contiguous private tracts, bringing with it discouragement of private effort. Fifty thousand dollars spent during the next fiscal year would have carried encouragement to private owners, brought to light scientific facts which would improve control methods and given a greater value per dollar to the work done by everybody. An investment of \$50,000 to attack an annual loss of more than \$15,000,000 certainly cannot be termed an extravagance particularly when those familiar with the pine bark beetles are convinced that they can be controlled. In the face of this and for the want of a few thousand dollars a year, shall we surrender to the beetles?

MARCH MEETING

The regular March meeting of the Floral Association will be held in the Floral Building in Balboa Park on the evening of Tuesday the fifteenth.

The speaker of the evening will be Mr. Arthur T. Fischer, Chief of the Bureau of Forestry of the Philippine Islands. Mr. Fischer has been in San Diego several months, and, after studying our local climatic conditions, feels that there are several Philippine trees and shrubs which would grow well here and prove valuable additions to our gardens. Especially useful would be sand-binding plants for seashore properties. He has been invited to speak to the Association of these and of other interesting horticultural matters in the islands.

All visitors to San Diego who are interested in gardening are cordially invited to attend. Refreshments will be served and there will be an opportunity to learn something of the coming Spring Flower Show.

Just Gardens

By Margaret E. Sangster

It does not matter where they grow,
Their loveliness will be,
A place where lonely souls may go
In lands of memory.

They may be stately, with a dial
To catch the sun's warm shine—
They may be tender as a smile,
Or as a Valentine.

They may show just a touch of green
Against some city wall;
And yet, to wistful hearts, they mean
Youth's wonder, and life's all.

Just gardens, rising from the sod
Like laughter sweet in tone,
Like anthems, giving back to God,
The dearest thing we own.

It does not matter, very much,
The spot in which they grow—
For we come closer, by their touch,
To One, Whose love we know.

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MARCH WEATHER IN SAN DIEGO, CALIFORNIA

By Dean Blake.

It is in March that the temperature begins to increase. The frost hazard, while much less, is not entirely passed, and freezing temperatures are often recorded during this month in the valley low-lands, but it is never cold enough to warrant firing in the citrus groves.

March is also a rainy month, and since 1864 some rain has fallen every March, although in 1887, 0.02 inches was the monthly total. On the other hand, in 1867, 7.88 inches was recorded. As a rule, rainfall is attended by strong, gusty winds which sometimes reach a maximum velocity of 35 to 40 miles per hour, and blow for several days at a time.

A slight increase in cloudiness is noted, and a corresponding decrease in the amount of sunshine. The humidity continues relatively high.

Some interesting statistics for the month follow: The highest and lowest temperatures recorded since 1872 were 99 in 1879 and 36 in 1894; the maximum wind velocity was 46 miles from the west in 1916; the average humidity is 74 per cent; the amount of sunshine 64 per cent of the possible.

FLOWER SHOW

April 23rd and 24th

Patronize the Garden Advertisers.

AMERICAN ROSE SOCIETY

The American Rose Society that in 1915 had less than 300 members of whom only 54 were amateurs has now grown to a membership of 5000. This membership is made up largely of laymen who have come to better know the excellencies of the Rose and inspired by the common worship at the shrine of this "Queen of Flowers" delight in the wonderful fellowship with rose-lovers everywhere.

The true Rosarian after having received the benefits of membership in The American Rose Society not only resolves to remain in the fellowship but becomes a missionary seeking to carry the "Good news" of this society and its benefits to every rose-grower in his vicinity and that is the reason for this article.

Measured by its membership, its ideals and ambitions, its service to its members and to the public, The American Rose Society is the most successful and progressive of all American Horticultural organizations. This is a broad statement, but it is made only after a membership of some seven years which has brought familiarity with its actual accomplishments and its advanced program of service to its members.

The Society publishes annually The American Rose Annual, the outstanding Rose book of the world today. It is edited by that prince of writers on garden subjects, J. Horace McFarland, familiar to all who read garden magazines. This book, a copy of which each member receives, is a volume of some 200 pages and is devoted to every phase of rose interest. It gives a reliable description of the New Roses of all the World; the latest discoveries in pest control, soil and fertilizer experiments and experiences. It meets the present day conditions and is a wonderful inspiration for the future. It contains only new material as there are no duplications from former issues ever printed.

Concerning the 1927 Annual the Editor just before leaving for Florida, wrote as follows:

"This year the Annual will be of a very forward-looking type. It will take up rose breeding from a number of angles, and, giving reasons for doing things, it will tell how to do them so that any amateur may intelligently experiment.

"The whole story of the unpleasant brown canker of the rose will be told, with ample illustrations to easily recognize the disease, and with the last word in control measures, so that it may be prevented from ravaging rose gardens.

"We will have several intelligent surveys of the new roses grown abroad, all of them, however, tending to deplore the duplications and introductions of small merit which seem to prevail. In this connection, 'The Proof of

the Pudding,' much more extended, will give experiences of the utmost value from various parts of the country.

"Several novel rose promotion ideas will be advanced including one about a rose school which has been held in Texas, and another statement concerning prizes offered for rose essays by high school pupils in Pennsylvania. The 'Rose Heresies,' which have done so much in the past two years to simplify rose growing for the beginner, are further intelligently discussed and fully confirmed.

"Dr. Mills contributes a charming view of California rose growing. Captain Thomas tells us why Tea Roses are best for the South. Our Australian friends give us important hints, included among which is one as to why roses fail because they have been propagated from immature buds.

"All the news roses of the world, a portentous number, will be described, and there are many rose notes of interest.

"There will be a second set of directions for the beginner and from the Secretary, a review of the Rose Referendum.

"From these items, you can get, I think, a little hint of the good book we are going to put out."

The Society maintains a fine Loan Library; it offers a list of lectures, and it offers advice by consulting rosarians who are always ready to give suggestions to beginners and others.

It publishes a Members hand-book which is also sent to every member. In addition to the reports of meetings and other items of value it lists its members in both alphabetical and geographical order. For example, the Editor of the California Garden may quickly discover who are his rose neighbors in San Diego County.

The American Rose Society encourages local rose shows by offering Silver and Bronze medals and Annual Memberships as premiums. There will be an annual membership offered at each rose show in this county and the Medals of the Society will be offered where the membership in the locality warrants it.

The officers from the President on down to the local secretaries give freely of their time, actuated only by the desire that everyone shall come to know the rose and its ennobling influences on character and life until the Society's slogan "A rose for every home, a bush for every garden" shall have become a fact.

The annual membership dues are only \$3.00 which includes the Rose Annual, the hand book and bulletins and the many other services the members are entitled to. The writer has yet to meet the member who has felt that it is not a very profitable investment.

(Continued on Page 9)

STRAY THOUGHTS

(Continued from Page 5)

An amateur gardener, and the world owes a huge debt to that class of folk, writes me of her experience with two plants she bought a year ago: "I want to tell you that my two precious Daphnes are in full bloom and oh, so fragrant. They are blooming so generously, that I almost fear the tiny trees are overdoing it.

I can't begin to tell you how very much I've enjoyed them, and how many of my friends have enjoyed them too. Many have not so much as heard of Daphne—thinking of it as only a flower of the poet's imagination, but all think, as I do, that it is a fascinating shrub."

Reader of these lines, look up the Mythology of this plant, and how it acquired the name Daphne.

Tuberose: a common name applied to one of the most popular flowers of our gardens. In this Southland, a bed of them is a thing of beauty and a joy forever. They may be left in the same spot for years, the clump increasing in size as the seasons roll around, and to the "tenderfoot" from away back east, it may seem an incredible statement, that they begin to bloom as soon as the warm days of summer are with us, and never let up until the rainy season returns, along about Christmas day.

The odor is powerful; indeed so much so, that the flowers may not be brought indoors, without a nauseating effect to some people, but in the open their sweetness fills the air where they grow.

The proper name of this plant is *Polianthes tuberosa*. It belongs to the same tribe as *Amryllis Belladonna*. Its history is too long for an article like this. Look it up in Bailey's *Cyclopedia*. It's interesting.

Amaryllis Belladonna. What a beautiful specific name with which this bulb has been endowed: "Beautiful Lady," and fittingly so. The flowers are of a soft shell pink color, and the fragrance, like their color, is soft and sweet. Easily grown, it should be found in all herbaceous borders. Fine for cutting, the odor, pleasing to the sense of smell of every body, permeates the atmosphere of a room.

Last, but not least, of all the "fragrant flowering" plants for consideration at this time, is a member of the Cactus tribe. *Cereus grandiflorus* is the name this writer has always known it by. Reader of these lines, if you want to get brain storm, undertake the job of unraveling the tangled skein of nomenclature into which the entire tribe has become enmeshed in recent years.

Let us think of it as a Night Blooming subject, which will be the simplest and easiest way to know it.

Marvelously beautiful, because of the pure

white petals, the expanded flower is six to eight inches diameter, with a shade of lemon color within the tube. The stamens are numerous, long, and like unto silk floss, lie on the curved floor of the flower. Then, too, the fragrance is sweet beyond compare. The flowers open about sundown, and by three a. m. the next morning begin to fade. Ephemeral and ethereal things, the memory of them is a sweet treasure in the heart of all lovers of plant life.

A native of the West Indies, it thrives in locations which are protected from the north winds. Then, too, it thrives on a minimum amount of water, and in poor soil. Cuttings planted as soon as the ground gets warm, root as readily as do willow cuttings.

It climbs by adventitious roots when grown in a humid climate, but in this dry climate it must have support, then it will cover the side of a house, and one such specimen will produce as many as a half hundred flowers a night for two months. Such a scene is worthy striving for, and when attained, is worth going a long way to see.

AMERICAN ROSE SOCIETY

(Continued from Page 8)

Recently the San Diego Rose Society was organized, an account of which was given in Mr. Merrill's article in the February Garden. This Society is to be affiliated with the American Rose Society, its members also being members of the National organization and giving in addition the advantages of local Rose fellowship, visits to many rose gardens and the solving of problems peculiar to San Diego County. The annual dues of \$3.00 cover both memberships and there are no other financial obligations.

If you love Roses and want to know more about them you are invited into the memberships of these societies. Three dollars sent to Mrs. R. M. Pray, Secretary, Chula Vista, California, will enroll you in time to get your copy of the Annual which is soon to be off the press.

FORREST L. HIEATT.

CARELESS ONES PAY FOR FIRES

The sum of \$13,192.29 was collected from people responsible for forest fires throughout the State of Pennsylvania during 1926, according to the Bureau of Forest Protection. The money collected covers the cost of extinguishing the fires. The receipts during the last two months totaled close to \$1,200.

SOME TROPICAL PLANTS AND ANTS

By Harry Johnson.

Some of the most interesting relationships in nature are between ants and plants. The apparent niceness of mutual adaptation almost seems to preclude the suggestion of coincidence. In the tropics of both hemispheres there are many examples of this symbiotic habit between ants and their hosts.

During a two year plant collecting trip in the wonderful rain-forests of Central America, I was much struck by a few of these ant-loving species. They belonged to diverse families and had no special features in common. Each one set about attracting the ants in its own peculiar way.

While living at the Finca Chama, a cocoa and coffee plantation in the interior lowlands of Guatemala, I became acquainted with a species of *Maieta*. My attention was first drawn to it by the Indians (Kekchis) who called it Ishk- or woman plant. It seems that a decoction of the leaves is supposed to induce fertility. Like many of the Melastomaceae to which the genus belongs, this plant had a lush, weedy habit and frequently grew in the milpas or cornfields of the Indian laborers. It was also to be found in the undergrowth of the jungle. It grew some three to four feet high with an awkwardly branching arrangement and large, hairy leaves. These last were four to five inches long and like other members of the family had the peculiar curved veins and suppressed midrib. This distinctive disposal of the veins is supposed to assist the leaves to dry after wetting. In form they were broadly elliptic and at their base bore on each side of the petiole, a bladder-like expansion of the blade. These two bladders always were inhabited by a very small species of red ant. I opened many of them and never failed to find a colony. They were so tiny, almost like cheyenne pepper, that it hardly seemed possible that they offered any effective protection against enemies. However, it was a fact that all the plants inspected never showed the least appearance of having been molested.

Having an eye for the many beautiful native orchids I used to collect them and hang them in the trees of the garden. While at Mocca, a plantation overlooking the magnificent Polochic Valley, I espied a fine Epidendrum with bright, rosy-pink flowers, in habit somewhat like the hybrid *E. O'Brienianum*, but of more compact growth. It grew in the low trees overhanging the river. Blanco, one of the negroes who worked on the Panzos railroad, for a peso apiece agreed to collect them. I managed to get one but no more and on becoming curious soon discovered the reason. Every plant, without exception, harbored a thrifty colony of huge black ants with a bite like fire. I am quite sure about

the bite. The peculiar feature that attracted the ants in this case was the roots. They formed a globular, interlacing mass about a foot in diameter making a perfect and much appreciated nest. The ants certainly protected the plants but from what, unless from cockroaches and woodlice, I never found out.

A rather common and widely distributed small tree was an *Acacia* (*A. sphaerocephala*) one of the Cuerna-de-vacas or Cow-horns. The tree was some eight to ten feet tall, upright in habit with finely compound leaves and quantities of large, yoked, stipular spines. These spines looked exactly like a pair of swollen horns. Near the base and on the under side of each horn was a small round hole, made and used by the ants as an exit. Each pair of horns had a small colony of good sized ants. A few, broken open, revealed a number of pupae which the workers immediately ran off with. On observing further I noticed the ants feeding on the petioles, there being one or two extra floral nectaries on each. These glands secreted a sweetish liquid much relished by the standing army. Again the leaflets were peculiar in that each bore a tiny yellowish body on the tip. These were easily removable and were apparently eaten by the ants. The fruit was a red pod containing a sweet white pulp in which the seeds were imbedded. One never found the trees away from the clearings and never were they without the guerrilla army deployed to the best advantage. Immediately one touched the tree he was aware of it and no mistake. Warriors hurrying in from all sides to take part in the fray. The bite inflicted by these fellows was quite painful.

That the ants were useful to the tree could be inferred for many of them were standing in pastures closely grazed by cattle and yet were never touched. At the time I did not make the obvious experiment of feeding the branches to the cattle. That the ants profited by the arrangement was clearly to be seen for they seldom if ever left the tree. Just how such a series of mutual benefits arose is a matter of conjecture and will probably so remain. The supposition would be that the plant first attracted the ants by affording shelter or food and that the secondary contacts, at least on the ants' side, were built up in response to mutual needs.

EDITOR'S NOTE. The Editor has hanging in his office a long spiny branch of another cow-horn acacia similar to that described by Mr. Johnson. This one is said to be an African species, *A. horrida* (?) and was grown at the former Government Experiment Station at Chula Vista. The specific name as given of this acacia may not be accurate but it certainly well fits the plant. It is decidedly pendulous or drooping in habit, forming a large bush of exceedingly striking and formidable appearance.

Not long ago an office visitor exclaimed upon seeing the branch hanging on the wall that he had last run across this type of plant in Africa where it formed so impenetrable a thicket that even elephants avoided it. He also stated as a curious fact that each pair of spines was inhabited by a colony of vicious ants. Evidently the Central American and African ants have some characteristics in common.

THE GARDEN

(Continued from Page 5)

Dahlia bed, there will probably be a greater degree of success in the quality of the plants and blooms you will produce. But as many of us, who just have the usual small garden and are somewhat haphazard in the management (or perhaps I should say the mismanagement) of it, have probably made no special preparation for our Dahlias, if we plant them properly and give them the necessary care during the growing period, there is no reason why we cannot have lots of good flowers.

So spade up your ground well where you are going to plant your bulbs, make holes about 6 inches deep and lay the tube horizontally (or lying flat) in the bottom of the hole, with the eye on the upper side. Drive a 5 foot redwood stake firmly into the ground a couple of inches from the top end of the bulb, and cover bulb with about 4 inches of soil, pressing down gently over the bulb, and as the Dahlia sprout or sprouts come up, carefully fill in to the level of surrounding surface of the ground, making your plant from one good sprout. If your ground is heavy clay soil, mix in some sand and leaf mold or peat moss and a hand full of bone meal (the bone meal is equally good in lighter soil.)

Do not plant your tubers in wet soil, but in soil that is thoroughly moist. As your plants grow they will need considerable fertilizing, moisture and plenty of cultivation, being careful not to work too close to the plant on account of the mass of fibrous roots. A good mulch of finely pulverized sheep manure is good. The best planting time is from the middle of March to the middle of May, but if our phenomenal rains continue, do not plant as long as ground is really wet, particularly in heavy soils. When the plants have made about three sets of leaves pinch out the top to encourage branching. Do not plant Dahlias nearer than 3 feet apart.

For the time and care given there is no flower that will give more value than the Dahlia, and there are literally hundreds of good ones to choose from.

March and April are the two great planting months in the garden, and there are many flower seeds and plants that should go in now.

BAKERSFIELD GARDEN CLUB ARRANGE MEMORIAL TO BURBANK

An everlasting memorial to Luther Burbank will be planted on Frazier Mountain, March 7th, by Mrs. Burbank and a delegation of Santa Rosa citizens. No more fitting tribute could be paid the great lover of growing things than to give life, in his name, to a grove of the long-living California redwoods, and these trees have been selected to compose the memorial grove.

Frazier Mountain is about fifty miles south of Bakersfield, just off the famous Ridge Road. Kern County citizens have already established there "The Sanctuary of the Pines," where ten newly planted young sequoias are thriving. Mrs. Julia G. Babcock, Kern County librarian, will add to them this spring ten more young trees, and John MacLaren, of the San Francisco park commission, will furnish additional coniferous stock for planting in "The Sanctuary of the Pines."

The Santa Rosa Flower Lovers' Club and the Pasadena Garden Club will both have representatives at the Arbor Day ceremonial on Frazier Mountain. The occasion is being arranged by the Bakersfield Garden Club, which in the last four years has been one of the most conspicuously active agents for city beautification, having awakened a community-wide consciousness of importance of planting trees from which the whole city derives benefit, and home gardens which are a source of joy to the individual house-holder.

Members of the Garden Club have received communications from all over the world regarding the grove to which Mrs. Burbank will make her immortal contribution on Arbor Day. Several foreign legations have offered assistance with the development of the sanctuary and have promised to obtain trees suited to the locality and elevation, from various parts of the world.—Western Florist.

PRIMITIVE AREA SET ASIDE IN CALIFORNIA

Attracting keen scientific interest as the only reserve of its kind in the United States lies an area approximately seven square miles in the High Sierra country of Yosemite National Park, California. This has just been set aside as a complete and perpetual reservation in which the flora and fauna will always be left in their primitive state. All domestic animals, camping and fishing will be excluded, and admission will be by special permit only.

This perpetual reserve will be maintained for the express purpose of affording an opportunity of studying plants, animals and geologic and other natural features under primitive conditions.—American Forests.

LATH HOUSE MATTERS

By Alfred D. Robinson.

So many people have asked me how much damage I suffered from the bounteous rain of February, that I am forced to conclude a sort of anticipatory pleasure in listening to a recital of woe and therefore want to record that not a single plant or anything else suffered in even the smallest degree and everything benefited enormously. It is these real rains that save out lives and fill our reservoirs. The ordinary rains of from a quarter to an inch do no more than produce a certain condition of wetness, but these falls of from three to six inches wash down or away the accumulated salts in our top soil and return us to that state so beloved of the realtor, that they with bated breath call Virgin. I do not want to hear any of the complaints about the damage to IMPROVEMENTS (?) built across natural watercourses. But there, this has nothing to do with lath houses and I am no longer editor of this or any other magazine.

I am still laughing over being classed by the editor of an eastern magazine as being too much of a scientist and specialist to be able to write for the general public. Why, I have to keep a glossary of botanical terms on my desk to be able to understand his paper which is keyed down to the kindergarten class and that brings me easily to a bulletin just received on the Philippine Species of Begonia, dissecting and presumably describing fifty-nine sorts. I say presumably describing, for among them is one named Robinsoni, that another Robinson had the gall to discover or godfather in 1908, and being specially interested, of course, I have tried to translate the scientific language into one that means something to me. The margin of the bulletin, fortunately a generous one, is now filled with my equivalent of such words as Suffrutescent, terete, glabrous, acuminate, cordate, lepidote, etc., and I am beginning to have a faint sketchy idea of a shrubby Begonia with typical shaped leaves that is rather heartshaped, and uneven sided dark brownish in color, spotted with small scale-like whitish specks, about five by two inches, and flowers borne in the axils of these leaves, but the further story of these is still in a foreign tongue and I know it says nothing about the color. From my point of view this is the most elaborately disguised and aggravating description I have ever come across and I know I might meet Begonia Robinsoni in the plant and never know it from any other except it might be different. When Dr. L. H. Bailey visited Rosecroft on three occasions, I sweat internally and infernally for fear he might ask me the difference between petiole, peduncle,

and pedicel and though I know at this minute I won't in half an hour and I never did when he was here. I have been half promised seed of some of these Philippine Begonias and if I ever get some plants growing I am prepared to take up foreign languages and speak with unaccustomed tongues, how will you greet such as these, pseudo-lateralis, fasciculiflora, longistipula, crispipila, etc.?

Returning to the blessed rain, did you notice how warm it was. I have installed three thermometers registering high and low so I am not guessing when I state that the minimum rose six degrees when the storm got well underway and kept there till it cleared when it dropped a few degrees, only to rise with the two following night sprinkles. This means a material raise in the temperature of the soil and we must look for rapid growth. A top dressing of half sandy loam and half cow manure will be much appreciated in the lath house, put it on generously, in the absence of the cow contribution add some bone meal at the rate of half a shovel to a barrow load and if you wish to be a real Father Christmas add the same amount of charcoal, such as the chicken enthusiast fatuously hopes will help his hens to lay enough eggs to make them profitable servants. A word about the meaning of sandy, as connected with loam or other material, its office is to keep an open condition of soil at the same time by its weight to preserve a certain cohesion necessary for moisture tenure and proper root action. This sand wants to be coarse and gritty. I have inspected lath house soil since the rain and find in so many instances that it is altogether too fine and has sort of melted down and glazed on the surface, this a good lath house soil will never do. Avoid anything like silt in your mixture, get you leaf mold coarse, full of lumps and bits of stick, etc., and never screen it. If you have a lath house where the soil is heavy or inclined to melt down, make a close study of the plans in it now, you will find that those in raised situations look the best, and that those that look discouraged and have yellowing foliage with tips of leaves dying back have been possibly water logged. The safe way in these close cold soils is to build the lath house up above them, don't excavate for beds but put your lath house compost on the top of the normal elevation, in plain terms elevate it.

It is now in order to plant any kind of Begonia or lath house subject and in looking over your planting with an idea to rearrangement, enlargement, etc., discard the obviously weakened specimens. Every planting gets these now and then, those with a

single almost leafless stalk hanging on to life by half a dozen roots barely in the ground, they are not worth anything but may have earned a decent cremation. How many folks live year after with an unsatisfactory planting just because it happens to be there, it is no crime to change, in fact it is often a serious offence not to.

The tuberous Begonias appear to be fast stepping up in popular favor in the East. I am looking at a page ad in color from an Eastern magazine with a million circulation, entirely devoted to Tuberous Begonias confined to just the regular sorts in singles and doubles. I know that ad costs way above a thousand dollars because I asked for quotations and have been kind of weak ever since I got a reply. Just visualize the number of tubers those folks will have to sell to make that ad a paying one. Given partial shade these Begonias do well in Southern California the tubers are now sprouting, try them, they fill the bill for the folks who want a real show for their money, the flowers are very large and the colors brilliant and the blooming season all summer.

Make cuttings of anything you wish now, use mature but not old wood and not too large a piece. Get in your Rex leaves, still plenty of time to plant seed of tuberous, bedders and the like, and finish all pruning and trimming.

Spray with Volck for red spider, you will have him so go after him now while it is easy to cover everything.

PETRIFIED FOREST DISCOVERED IN TEXAS

What is pronounced to be the most marvelous petrified forest known to man, has just been discovered in Texas by two geologists, Dr. C. O. Gaither and Professor S. I. Cade, according to the New York Zoological Society Bulletin. It is situated in an almost inaccessible valley of the Big Bend region of Texas, nearly 100 miles from the nearest railroad.

Dr. Gaither and Professor Cade state that they found tree trunks standing to a height of 100 to 150 feet, and also many great trunks of trees lying prostrate, of a size unparalleled in the world, both in diameter and length. One tree trunk measured 896 feet in length. The upright trunks are so large that they appear from a distance to be great symmetrical columns of natural rock.

Few white persons have visited this distant valley which is split by a deep arroyo leading into the Rio Grande. A thick layer of volcanic ashes and pumice stone cover the surface, which evidently came from a peak in the neighboring Chisos Mountains. Since the prostrate trunks are partly covered with ashes, it is evident that this volcanic eruption occurred long after the forest passed into its present petrified state.

AN OUTLINE OF PLANT GEOGRAPHY

By Douglas Houghton Campbell

(8vo, 392 pp., The MacMillan Company, 1926.)

Our gardens would be vastly richer in interest, the reward of our labor in their cultivation more meaningful and enduring, if we but cared to learn more about the lovely subject of our toil—the regions whence they came, the conditions under which they dwell and to which they have adapted themselves, the associated plants which we must likewise know something about if we are truly to picture their surroundings and thus to discover the appropriateness or wisdom of our own treatment of them. Not many of us can journey to all the ends of the earth to so embellish our thoughts, but the most straitened can accomplish much by the wise reading of good books. Unhappily for the ordinary horticulturist much information which would be of material value to him is locked in treatises too technical for the average amateur to struggle with, but now and then a volume appears which is compiled in simpler style and to which he may have access with profit. Just such a work is this latest book from the pen of Dr. Douglas Houghton Campbell of Stanford University. While the notes offered are possibly of too random a nature to be accurately called an "Outline," they may on that account be the less lifeless. Certainly the many passages dealing with this widely traveled author's impressions of the varied regions he has visited and the innumerable plant associations which he has made the subject of personal observation or study are by no means the least valuable feature of the book.

Where plants are adapted to withstand low temperatures as extreme as -76 deg. F. as in parts of Siberia on the one hand (23 specimens have been recorded from Cape Chelyuskin, the northernmost point of continental Asia, or the terrific heat of the Red Sea region on the other, or ranges of as much as 182 deg. F. (in Montana), or rainfall from nearly zero in northern Chile, and other deserts, to near 500 inches per annum at Cheripunjil, India, it is no wonder that we find such infinite variety among their structures and habits, and so very much to arouse our enthusiasm in the culture and study no matter where our little garden plot be found.

Dr. Campbell finds western Java and parts of Sumatra pre-eminent for luxury and variety in vegetation; Hawaii among the most noteworthy areas for the proportionate number of endemic plants (75%); Jamaica (and to a less extent western Java and Costa Rica) supreme for its ferns, with *Cyathea medullaris* of New Zealand the finest of the known arboreal species; the Albany district of Western Australia unequalled for the gorgeousness

of its native floral display, though closely seconded by the Cape region of South Africa; the western slope of North America quite alone for its coniferous forest, northwestern Montana in the Glacier Park region being particularly noted for the large number of species found growing together; the American tropics most notable of all regions for arborescent palms (*Oreodoxa oleracea* of the West Indies "perhaps the finest of all palms"). The coast redwood of California at 342 feet is noted as the highest known species of tree, although the plant attaining the greatest linear dimension is not a tree but a climbing rattan palm. For area covered the largest tree noted is the famous Calcutta banyan, the crown of which is said to have a circumference of 938 feet. The choicest of fruits are held to be the mangosteen and the durian.

The sad consequence of man's inevitable but ever too reckless alteration of nature's handiwork is frequently stressed in the book and we are given pause when we discover in how many regions, whether in Europe, Africa, India, China, Java, or North America, the destruction of the wholly unreplaceable virgin vegetation is now almost total. Would that we might take warning for the saving of some of the remnants left to us!

This brief notice is not intended as a critique, but if one were to pick out faults in the book attention might well be directed to the too hit-or-miss use of such words as "cedar" (applied to at least five entirely diverse genera), "myrtle," "tamarack," "syringa," and others. Words thus used in loose or colloquial denomination are objectionable even in a purely popular work, but doubly so in one which is primarily scientific and distributional. One finds also an occasional looseness in geographical usage. The somewhat repetitive treatment and the ragged arrangement of subtitles are less vital points to mention.

Photographic illustrations are employed with pleasing generosity and are frequently of great beauty. The majority seem to have come from the busy camera of the author himself. S. S. B.

CALIFORNIA HONORS TREES

What is said to be both the oldest and the largest orange tree in California, planted seventy years ago at Bidwell Bar, near Oroville, is to be honored by a monument and the holding of a celebration.

This tree was set out when California was highly excited over the second major gold strike. As high as one dollar each for the oranges was paid by the miners who took the seeds away with them and planted them all over the state. It is stated that the mother tree has never had a crop failure and that it is healthy and vigorous today.

RAINFORD FLOWER SHOP



Cut Flowers

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San Diego

IMPROVING THE FLOWER SHOWS

Now that garden clubs are numerous and flower shows frequent, perhaps it is not out of place to suggest certain improvements. The majority of garden clubs have reached the point where shows are well run. There is little confusion about entries and exhibits, the latter are properly spaced, the classes are numbered and the shows are patronized by many visitors. Such being the case, it behooves the associations responsible for the shows to make them as nearly perfect as possible.

The things to do are to set higher standards each year and to select really competent judges who will refrain from giving prizes to any but worthy exhibits. Also, the rules should be clearly worded and strictly adhered to. Ambiguously worded rules make trouble for the committee, the judges and the exhibitors and will always leave one set of members feeling that they have been discriminated against.

It is poor policy to be easy with exhibitors, for this tends to make them lazy. The really good exhibitor will become discouraged and drop out whereas that one who leaves because he misses a prize by his own mistake and becomes "miffed" if disqualified, will be little loss to a club. If a strict regime is maintained "dead wood" will quickly disappear. Better a small and active club than a

large and limp one. A glaring fault of the amateur show is the lack of labelling. The committee should see that the class-cards tell, not only the class-number, but the specifications of the class and besides this, the varieties should be marked. Exhibits that are correctly named should have precedence with the judges if they are in any way worthy of a prize. A show is to educate the public, but above all, the exhibitors. This can only be done where the flowers and plants are named. In a crowded room even the class-card is visible to but a few.

Where the exhibitors are novices a member of the committee conversant with flowers should always be on hand to answer their questions and help them with the labelling. This is successfully practised in a number of clubs. Incidentally, if flowers are sold or given away after the show, the tags go with them for then education will still go on. Adequate scales of points should be provided by the committee for the judges, particularly in decorative classes. One of the greatest difficulties is to get judges qualified to judge such classes as just picking out an artist usually will not do. Should it be a breakfast tray, the poor man probably will not have the slightest idea whether the accessories are suitable to be carried upstairs or the tray light enough to be held on the lap. He will only look at the color and, should he be feeling "seedy" that day and should it be of a jaundiced color, as many of the modern "original" arrangements are, he will quickly throw the exhibit out on color alone. The Federated Garden Clubs of New York State are thinking of starting a course for judges and let us hope the idea will prosper and bear fruit, for many good judges are much needed.

—Ethel Anson S. Peckham.

FORESTS AND THE PRESS

"Without forests the whole framework of our civilization would be wrecked," says Ellwood Wilson, in the Syracuse News-Letter. "That is what would happen if our forests were to be exhausted, for beyond America there are no forests that can take the place of our own; indeed, the wood-work and utilizing industries of much of the outside world would be ruined with the passing of our forests. To cite one example: Because of paper the whole physical basis of the printer's art and the universal domain of the printed word are founded on the forests. Try to visualize this America of ours without the printing press. It simply could not run. Public education would collapse, the newspapers would perish, books would be no more, advertising would cease, business would revert to the petty dimensions of peasant economy and life would become drear and barren."

CLUB TOLD OF OREGON ROSES

The City of Roses was described before the San Diego Rose Society at its luncheon yesterday in the Cafe Cabrillo by Jesse A. Curry, a member of the Royal Rosarians of Portland.

The Royal Rosarians, he explained, are a group of 200 Portland business men who present a rose festival each June. During the rest of the year they work with the park board in testing roses. They do not allow any roses to be planted in their parks which do not come up to 85 per cent of perfection for the climate and soil of Portland. Each member is assigned a rose to plant and develop.

The object of the Rosarians is to make Portland so beautiful that people won't want to live any place else. The organization teaches the people of Portland common sense in rose gardening, and in this way makes for civic contentment which benefits the city, Curry said.

The Business Women's Club of Portland sees to it that every tourist in Portland gets a rose, according to Curry. Sometimes as many as 20,000 roses are given away in one day.

Leslie Butler, a Royal Rosarian, gave greetings from his city. Mrs. Laura Knox, who planted the rose garden in back of the organ pavilion in Balboa Park, before the exposition, gave a short talk.

Covers were laid for 35 members and guests. F. L. Heatt, president of the San Diego Rose Society, presided.—Sun, Feb. 19,

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BIOGRAPHY OF U. C. DONOR PUBLISHED

In tribute to the memory of Townshend Stith Brandegee and his wife, Mary Katherine Layne Curran Brandegee, botanists who contributed greatly to the botanical collections of the University of California, Professor William A. Setchell, Chairman of the Department of Botany on the Berkeley campus, has just published a short biography of the couple on the University Press.

The lives of Brandegee and Mrs. Brandegee, as outlined in the new publication, are made interesting not only by the fact that both are botanists but that both started out in life on professional careers, one as a civil engineer, the other as a doctor.

Brandegee was born in Connecticut in 1843 and graduated from Yale in 1870 as a civil engineer. He practiced this profession for 18 years, but always his spare time was spent in collecting specimens, as it had been when he was a boy working on his father's farm.

Mrs. Brandegee, from Tennessee, graduated from the University of California Medical College in 1878 and practiced her profession for some time in San Francisco. Later, however, she returned to the study of botany, in which she had always been interested, and was made curator of the herbarium of the California Academy of Sciences.

Through the Science Academy Brandegee met his future wife and together they made a remarkable collection of California and coastal flora. In 1906 they came to the University of California, after having lived in San Diego for a number of years following their marriage there in 1889. About that time their collections were presented to the institution for the benefit of posterity.

RABBITS THAT BARK

Under this rather startling title the Missouri Botanical Garden Bulletin has much to say concerning the damage to young trees and shrubs by rabbits.

Rabbits are known to damage young trees and shrubs every year, the amount of damage varying from season to season with the weather and the number of rabbits. Due to the grading of a tract of land at the Garden which formerly was covered with farm crops and low brush, the wild life has been forced into the main garden. While the actual number of rabbits is not very great, they have been doing considerable damage. Experimental plots of winter wheat have been cut to the ground, and during the recent cold spell many ornamental plants were damaged. On account of the negligible amount of snow in recent years, traps are almost useless, since rabbits cannot be trapped.

What should be done to plants injured by rabbits? If properly taken care of, most

wounds will heal by callousing. In the case of shrubs the damaged wood can be removed if the injury is not too general, but trees that have one main trunk must be treated. Damage is sometimes confined only to one side of the trunk, and in such instances the remaining uninjured tissue is sufficient for the sap to flow through. The frayed edges in wounds of this sort should be cut to a smooth edge and the entire wound covered over with grafting wax and cloth, to exclude moisture and prevent fungus spores from entering. The cloth also prevents the wound from drying out in extremely hot weather. The wash is prepared by heating in a vessel one part tallow, two parts beeswax, and four parts rosin. When melted, the mixture is poured into cold water and then pulled until it assumes a light cream color. Occasional greasing of the hands while pulling will prevent the wax from sticking.

When the number of ornamental plants on a place is not very great and the damage by rabbits and mice is anticipated, it is well to place some wire netting, to a height of about eighteen inches, about the stems of such plants.

SAVE THE CALAVERAS GROVES

An organization under the name of the Calaveras Grove Association has recently been incorporated in California, with headquarters at Stockton, for the avowed purpose of preserving the Calaveras Big Tree Grove as a state park.

The "north grove" consisting of 1,760 acres of densely forested land, including 110 imposing sequoias, is owned by Robert Whiteside, of Duluth. The Pickering and Standard Lumber Companies own the "south grove" in which there are about 1,380 Big Trees. Preliminary overtures by the Association apparently indicate that the owners of the two groves are in accord with the purposes of the Association, and it is hoped that the terms of purchase may be agreed upon.

The yellow and sugar pine trees on these tracts are said to constitute the finest stand of its kind on the western slope of the Sierra.

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